February 2005

Leading Edge

Air Force Materiel Command

HOT on the outside
COLD on the inside

page 6

http://www.afmc-pub.wpafb.af.mil/HQ-AFMC/PA/leading_edge/index.htm

February 2005

Volume 47 Number 2

LEADING EDGE

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This funded magazine is published monthly for the people of Air Force Materiel Command.

Contents are not necessarily the official views of, nor endorsed by, the U.S. Government, the Department of Defense or the Department of the Air Force.

Editorial content is coordinated and prepared by the HQ AFMC Office of Public Affairs editorial and design staff.

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Mission Focus

Mission Progress

Features

Around the command

☆☆☆☆ Gen. Gregory S. Martin

AFMC focuses on well-being of all

The Air Force shows it values life by affording its people resources to take care of themselves and one another — spiritually, mentally, emotionally and physically. We do provide facilities and professional services in each of these areas. But it's clear we should offer more help to our Air Force civilians, striving for consistency with the emphasis we place on the physical fitness and well-being of our military members.

We are now doing that. I'm pleased to tell you about major steps AFMC is taking to improve the physical well-being of our Air Force civilians.

During my first few months as AFMC commander, the number of condolence letters I sent was staggering. As commander of U. S. Air Forces Europe, prior to arriving at AFMC a year and a half ago, I had signed some five condolence letters a year to families of command Air Force civilians who had died. With around 80,000 people assigned in AFMC — not quite three times the number employed by USAFE — I told myself that AFMC would likely lose about 15 Air Force people a year.

When that number for AFMC turned out to be more like 12 to 15 a month, I thought the reporting system must be flawed. Sadly, it was not. I'm not talking about deaths due to suicide, advanced cancers or tragic accidents. I'm talking about causes of death that are often preventable, causes such as heart attack, stroke and adult-onset diabetes ... and most of the losses are from our Air Force Civilian ranks.

I realize the average age of the Air Force civilian force is 46, while for officers, it's 35, and for enlisted, 29. Since the bulk of Air Force civilians work for AFMC, it's to be expected that we would see more health problems than other commands. Even so, I'm not willing to accept as routine the health problems and the number of deaths I've seen in AFMC.

So, in order to facilitate better health of all of our team members, we are rolling out a program that provides our command's Air Force civilians the benefits of assessing their current physical condition, getting professional advice on achieving improvements, and monitoring their progress toward better health.

This is a voluntary program; no one can be required to participate. I believe, however, that all Air Force civilians can benefit from our new Civilian Health Promotion Services. These services have been developed and funded at $2.4 million by a command-wide agreement with Federal Occupational Health, a component of the U. S. Department of Health and Human Services. Installation commanders also are sharing in funding of the program by providing necessities such as facility space, computers, phones and biohazard waste disposal. Participants pay nothing for the screenings and services provided by FOH, although some services not affiliated with FOH or DOD may occasionally be made available for a fee.

Services provided by FOH will include an annual health assessment and specific screenings for such things as blood pressure and cholesterol levels. FOH-contracted staff at each AFMC installation will stage an annual health fair and teach classes in nutrition, exercise, stress management and tobacco cessation. Results of screenings are provided to the participant to use as he or she sees fit.

Once registered, Air Force civilians will be able to schedule screenings, or attend classes and health fairs during duty hours with supervisory approval. Registration requires completion of a health-risk appraisal, which summarizes a participant's health risks and provides specific recommendations about lifestyle changes that can help decrease risks for the leading causes of death and disability. FOH is responsible for ensuring the security of personal information. No information from individual health assessments will be shared, but aggregate reports will be compiled to show what I believe will be ongoing improvements in the physical well-being of our Air Force civilians.

Let me emphasize that this is an entirely voluntary program. But I highly encourage our Air Force civilians to make the most of these services. When people make their physical health a priority, numerous other benefits, personally and professionally, will follow.

Establishment of Civilian Health Promotion Services has been accomplished through the management/union Partnership Council. Bargaining obligations for American Federation of Government Employees, Council 214, have been fulfilled at the command level, but activities with local bargaining obligations will go ahead with appropriate local negotiations.

In the next month or so, we will advance our goals further by providing duty time for our Air Force civilians to engage in fitness activities. On Jan. 14, Col. Robert R. Allardice and his folks in the headquarters Personnel Directorate reached an agreement with AFGE Council 214, which represents a majority of our civilian employees, on this issue. Be looking to hear more about this program.

I am proud of these initiatives because improving the health and fitness of both military members and Air Force civilians in this command is the right thing to do and a top priority. Civilian Health Promotion Services, and providing time for fitness activities, will advance directly one of the five AFMC goals: "Sustain a safe, healthy, fit and ready work force."

It's not magic, it's magnetic

DAVIS-MONTHAN AIR FORCE BASE, Ariz. — Lost tools are the bane of any aircraft maintenance program. They represent a hazard to safe operation of aircraft. Searching for them wastes countless man hours. Replacing them costs the Air Force and the taxpayer plenty. If only there was some magical means to find them.

Perhaps it's not magical, but "magnetical" in the form of AMARC's new Aeroprobe Tool Detection System. The Aeroprobe system, which AMARC teams recently tested at the refit facility, consists of two parts: a tool magnetizer and a probe detector wand/headset.

Illustrating the value of the Aeroprobe system, Larry Gee from the A-10 Service Life Extension Program line began by magnetizing several tools.

"They hold some level of magnetism indefinitely," Gee said. "But to be safe, the [Aeroprobe] company recommends recharging all tools each time the kit is inventoried."

Gee then placed a pre-magnetized socket behind the leading edge of an A-10 wing, stepped away from the aircraft, activated the probe, and began his search. As he swept across the hidden tool, the Aeroprobe signaled its location.

"It picks up magnetized objects up to 16 inches away from the probe," Gee said. "Obviously the larger the missing object, the stronger the signal strength from the Aeroprobe."

Gee noted that small tools or tools with high non-steel alloy content can be more challenging to locate; however, by adjusting settings, the system can still locate them effectively.

While the Aeroprobe must still undergo additional testing prior to full-scale use, once approved Gee believed it would prove to be a valuable asset for lost tool management.

AMARC's Larry Gee uses the Aeroprobe tool finder wand to locate a missing socket in the leading edge of an A-10 wing. (AF photo)

— AMARC Public Affairs

Chief Master Sgt. Steven Hicks, Air Force Flight Test Center command chief, presents Marine Private 1st Class Joshua Frey, assigned to Camp Pendleton, Calif., a personal gaming system he can use while recovering from his injury sustained in Iraq. A group of chief master sergeants and a Marine sergeant major traveled from Edwards AFB, Calif., to Camp Pendleton, Calif., to deliver personal and standalone DVD players, personal gaming systems, video games and electric razors to Marines injured during a firefight against insurgents during Operation Al Fajr.

(AF photo by Senior Airman Mark Woodbury)

Kirtland fights laser war

KIRTLAND AIR FORCE BASE, N.M. — F-16 pilots participating in a computerized war-game exercise were armed with a simulated laser cannon developed by the Air Force Research Laboratory here.

During the Advanced Concepts Event exercise, pilots used the newly-developed laser-armed F-16 simulator to become better prepared for aerial combat once laser weapons become available. The simulator also allows Air Combat Command to develop tactics, techniques and procedures that will be needed in future laser battles.

Taking place on Kirtland, ACE is an exercise for all the military services. It incorporates simulators from throughout the country, networked to Kirtland. Officials note that the event offers the intensity of real exercises, providing participants the opportunity to wargame future weapon systems to determine military worth to the warfighter.

A laser-armed fighter aircraft is still a few years away. Needed, and under development, are solid-state lasers in the 100,000-watt range and compact electrical sources that can power high-energy laser weapons. Until then, that experience will only be available through simulators and exercises such as ACE.

— AFRL Public Affairs

Cargo and measurement equipment is placed and ready to be loaded onto a C-130 to test the AirWeighs system (AF photo)

Button-touch weight and balance

DAVIS-MONTHAN AIR FORCE BASE, Ariz. — A technological innovation known as AirWeighs may soon deliver significant improvements in flight safety by giving aircrews the ability to accurately measure aircraft weight before takeoff.

Developed by Crane Aerospace and Electronics and the Air Mobility Battlelab, the AirWeighs system underwent successful phase II ground testing. Mounted in a stored C-130 Hercules, Crane and the AMB tested the accuracy of the AirWeighs system against a set of pre-calibrated ground scales.

"I'm glad AMARC's capabilities played a role in these tests," said Rick Every of the AMARC Business Office. "Our team identified, positioned, fueled and de-fueled the test aircraft. We also provided ground support and security for the test."

Because the flight crew doesn't currently have the means to measure aircraft weight, their pre-flight weight and balance calculations derive from reported weight. If reported figures are incorrect, flight safety could be seriously compromised.

"We wanted a one-touch solution that would give flight crews reliable weight and balance information," said Master Sgt. Joe Duarte, program manager at the AMB in Ft. Dix, N.J.

Once deployed, the AirWeighs system on board each aircraft will accurately measure weight and center-of-gravity information, with the press of a button. That onboard measurement can then be programmed directly into an aircraft's flight computer.

— AMARC Public Affairs

NASA X-43A rockets to Mach 9.8 at Edwards

EDWARDS AIR FORCE BASE, Calif. — After a postponement of the mission due to an instrumentation system problem with the X-43A, NASA officials couldn't have hoped for a better flight than the one they had on Nov. 16.

"It was a great mission," said Joel Sitz, X-43A project manager. "It was 90 seconds of terror, but once it's over with, you realize you really accomplished something great."

The mission was intended to flight-validate the operation of the X-43A's supersonic-combustion ramjet — or scramjet — engine at a record airspeed of almost 10 times the speed of sound, or about 7,000 mph.

The flight was part of the Hyper-X program, a research effort designed to demonstrate air-breathing propulsion technologies for access to space and high-speed flight within the atmosphere. It will provide unique in-flight data on hypersonic air-breathing engine technologies that have large potential payoffs.

"I think there is definitely a use for this technology aboard commercial aircraft someday," Mr. Sitz said.

"It will take some time, but I think we are capable of getting there. I would like to see us focus on combining turbo and scramjet technologies so the aircraft would be able to take off under its own power."

— AFFTC Public Affairs

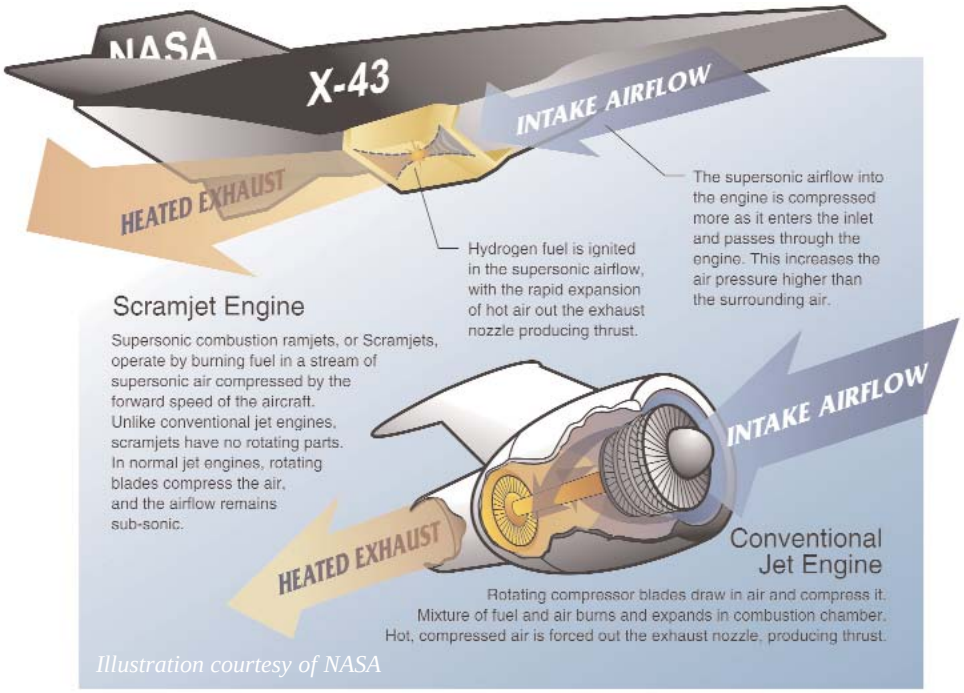
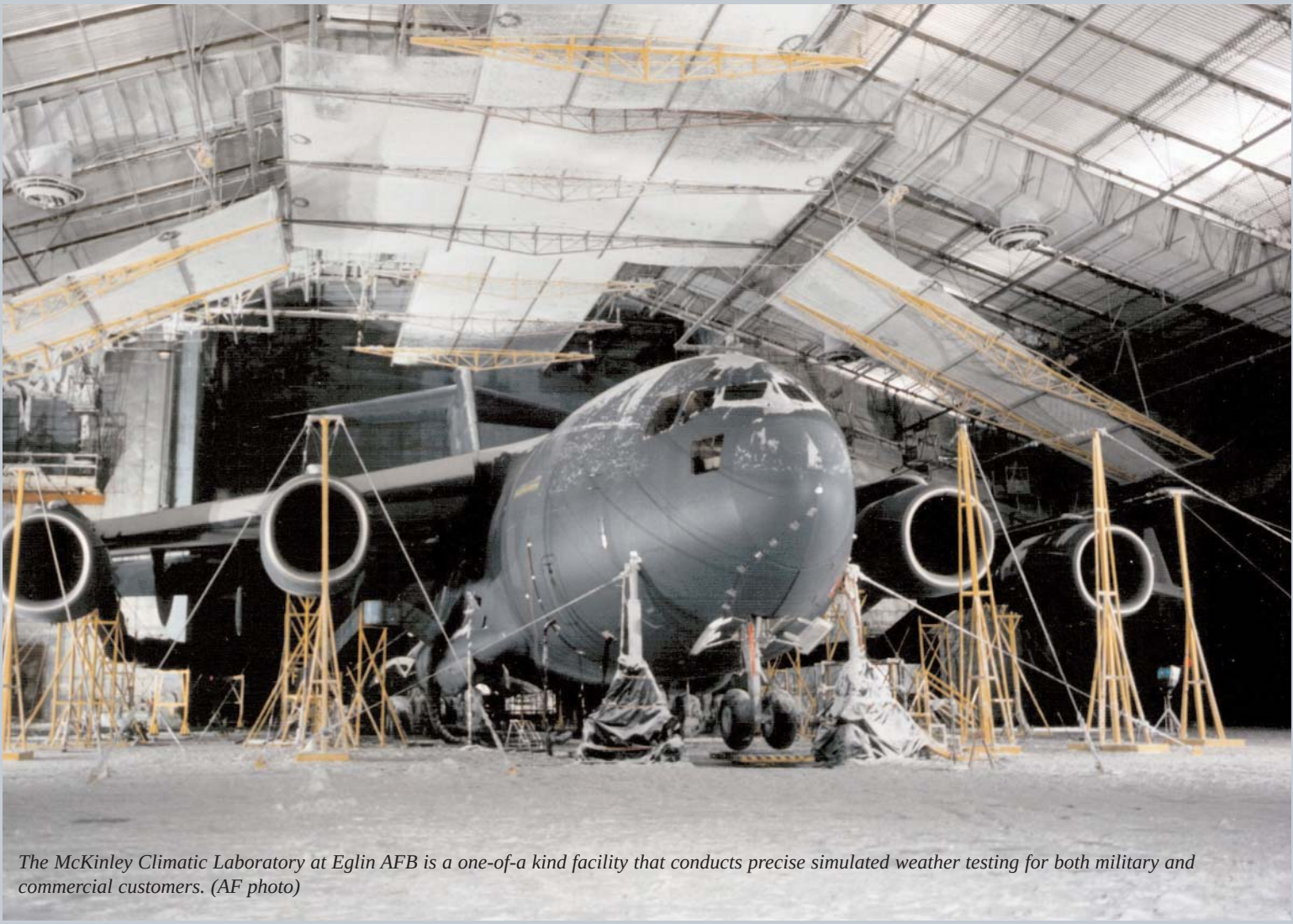


Illustration courtesy of NASA



The McKinley Climatic Laboratory at Eglin AFB is a one-of-a kind facility that conducts precise simulated weather testing for both military and commercial customers. (AF photo)

Inside AFMC's one-of-a-kind Climatic Lab

By 1st Lt. James Madeiros
96th ABW Public Affairs

As temperatures reached the upper 80s in the Florida panhandle, technicians in parkas crunched through snow in the McKinley Climatic Laboratory, Eglin Air Force Base, Fla., adjusting cones to form an indoor test track.

The lab's main chamber, which is large enough to house a C-5 Galaxy, was free of military testing the third week of October, and opened to a commercial company to use the facility for all-weather testing of various models of tires.

To make the test possible, lab engineers spent three days covering the floor of the chamber with several inches of snow to a specific consistency. The business renting the facility wanted to simulate winter driving conditions in Canada and the United States.

"The amount of commercial versus military (testing) varies a lot from year to year," said Kirk Velasco, climatic laboratory team leader. "However, it is currently running about 50 percent of each."

In the event of a clash of schedules military testing takes precedence, although every effort is made to facilitate all parties involved, Mr. Velasco said.

The unique capabilities of the climatic lab make it attractive to commercial businesses that find value in a facility that can

The unique capabilities of the climatic lab make it attractive to commercial businesses that find value in a facility that can simulate weather to precise specifications, and as an alternative to finding a geographic location where similar conditions exist naturally.

simulate weather to precise specifications, and as an alternative to finding a geographic location where similar conditions exist naturally.

In this way, the lab can be both cost-effective and more exact in the test data gathered within.

"The cost to use this facility can vary greatly depending on which chamber the customer wants to use and what type of climatic condition they want," Mr. Velasco said. "The daily rate can be as small as $3,000 per day or as high as $30,000 per day."

Making the facility available for commercial use positively impacts both Eglin and the Air Force's mission by helping reduce the cost of maintaining and operating the sophisticated laboratory.

It also makes sense to sustain lab use because letting it sit empty without testing, while necessary for routine maintenance, ultimately costs money.

"The climatic laboratory is a large, complex, one-of-a-kind facility that is very expensive to operate and maintain," said Mr. Velasco.

"By allowing commercial (companies) to use the facility when no military testing is taking place, it reduces the cost to Eglin and the taxpayers."

An Air Force B-52 Stratofortress is covered with snow and ice in the laboratory to test the aircraft for cold weather conditions. The McKinley Climatic Laboratory can is large enough to hold a C-5 Galaxy. (AF photo)

The Air Force allows commercial companies to use the facility when it is not being used for military testing. (AF photo)

F-16s are being equipped with upgraded High-speed Anti-Radiation Missile Targeting System pods to increase their effectiveness in Sead missions (AF photo)

IN HARM'S WAY

By Maj. Paul Capes
Air-to-Air Missile Systems Wing

Eglin Air Force Base is the center of a new evolution of warfighting technology. A test team led by the Lethal Suppression of Enemy Air Defenses program office of the Air-to-Air Missile Systems Wing made Air Force history recently at Edwards Air Force Base, Calif., by fulfilling a plan to check out an innovative new precision targeting technology.

"We are changing the way our Combat Air Forces approach air operations and are helping working to ensure our pilots will continue to dominate the skies," said Tom Robillard, Air-to-Air Missile Systems Wing director.

Since 2001, SEAD has been working with Raytheon Missile Systems in Tucson, Ariz., to develop an upgrade to the High-speed Anti-Radiation Missile Targeting System pods, also known as HTS, to react faster and with more precision than ever before.

"Our job is to improve and field an advanced technology system to help our warfighters be even more effective in the SEAD mission area," said Len Iannuzzo, who leads the office. "SEAD is one of the most important and crucial jobs of our air warriors and HTS plays a vital role in supporting the mission."

HTS works by helping F-16CJ crews identify and target enemy surface-to-air missile sites that try to shoot down aircraft. HTS passes targeting information to a High Speed Anti-radiation Missile carried by the F-16. When launched, the HARM hones in on the enemy radar signal and employs its high-explosive warhead, either destroying the threatening radar or forcing the crew to shut down to avoid being hit.

The improved pod is called HTS Release 7, also known as Smart Targeting and Identification via Networked Geolocation. Facing program delays due to a shortage of F-16 test aircraft, the HTS team reached out for help from one if its premier customers, the Swamp Foxes of the Air National Guard's 169th Fighter Wing at McEntire Air National Guard Station, S.C. The 169th FW offered to loan two F-16s to augment the 416th Flight Testing Squadron at Edwards, and a plan was hatched to fly two complex, four-ship test missions against a wide array of radar emitters on consecutive days.

Spanning four U.S. time zones, this "Total Force" team overcame red tape, worked with the F-16 System Program

Office and Air Force Flight Test Center to gain the necessary approvals, worked out the logistics and planned the missions in less than two weeks.

Everything came together on the Test and Training Range at Nellis Air Force Base, Nev., Aug. 10 and 11 with two successful missions, a mere three weeks after the plan was conceived. The flights provided an demonstration of exact identification and precision location in a variety of air defenses.

Senior Master Sgt. Eddie Hager, HTS logistics superintendent, said, "everyone pulled together, and the Swamp Fox maintainers were superb—they worked late to expedite software loads, reconfigured their aircraft, and really made the operation run smoothly in the heat of the Edwards flightline."

During a visit to Eglin Air Force Base, Fla., several days later, Gen. Gregory S. Martin, Air Force Materiel Command commander, heard the news and declared, "That's how a team's supposed to work — my hat's off to you!"

Mr. Robillard credits the Eglin and Edwards team members — and more importantly the operational crews. "We couldn't have done it without the total team approach, and special thanks are due to the South Carolina Air National Guard," Mr. Robillard said.

This success will go a long way toward helping the HTS program keep promises to deliver the new R7 capability to the warfighter on time. The system enters formal developmental testing in early 2005, and operational testers are already an integral part of the test team.

"The R7 pod provides a quantum leap in capability," said Amy Herrmann-Spears, HTS chief engineer in the Lethal SEAD office. "In addition to improving on the system's current capabilities, its advanced electronics and signal processing software will provide a new networked capability to target precision guided munitions familiar to people at Eglin."

After locating the threats, the F-16CJs will be able to pass targeting data using Link 16 to other friendly aircraft carrying precision munitions, enabling reactive, precision strike of enemy air defense radars — even if they shut down during the engagement.

"This ability to target precision munitions is really the genesis of the Destruction of Enemy Air Defenses mission," Mr. Iannuzzo said.

"We can ensure the hostile air defenses aren't there to threaten the next friendly aircraft."

Test flight clears way for CV-22 Osprey

By 1st Lt. Brooke Davis
AFFTC Public Affairs

During a series of safe separation tests, the CV-22 Integrated Test Team fired four different countermeasures — both chaff and flares — designed to deflect threats and cleared the way for the Air Force Special Operations Command to use them in the field.

Engineers designed the safe separation tests to take the CV-22 to its maximum flying capabilities envelope to ensure the countermeasures would safely clear from three buckets — or storage areas on the aircraft that house the countermeasures — located on the left and right rear side of the aircraft, as well as under the nose.

Flares are released from a CV-22 during a recent test to asses its combat readiness (AF photo)

"We flew in conditions throughout the entire operating envelope of the CV-22 in order to determine the separation characteristics of the various munitions," said Rick Watts, 418th Flight Test Squadron CV-22 flight test engineer.

In 12 flights flown, engineers tested the M211 Special Materials Covert Flare, M206 MagTef Flare, M212 Flare and the RR188 Chaff because these types of munitions are similar to other munitions in the Air Force inventory used by AFSOC, Mr. Watts said.

During the tests, engineers concocted specific combinations of the countermeasures to fire so they could test which combination was most effective against a series of threats and to verify they cleared the aircraft safely.

The countermeasures were then mapped by an infrared camera to see if they performed threat deterrence, fulfilling their countermeasure role, said Mr. Watts. The flares were also viewed by ultraviolet cameras to characterize their UV signature patterns.

"This is the first time to our knowledge that someone was looking at and characterizing these countermeasures in the UV spectrum," added Mr. Watts.

The aircraft is set up to automatically dispense munitions if it detects a threat, said Maj. Sean Londrigan, 418th FLTS CV-22 test pilot.

The Air Force, Navy and Marines are organized into a large V-22 Integrated Test Force, and the safe separations testing performed at Edwards helped clear the envelope for the entire V-22 fleet, said Maj. Greg Weber, 418th FLTS CV-22 government flight test director. The 46th Test Wing at Eglin Air Force Base, Fla., and NAVAIR contributed to the testing by analyzing data collected to confirm the flares are safe to use on the aircraft.

NEW DECON SYSTEM PROTECTS AIRMEN

By Rob Raine
AMARC Public Affairs Specialist

Portable vaporous hydrogen peroxide system equipment developed by STERIS Corp. and the Army outside a C-141B at the Aerospace Maintenance and Regeneration Center. (AF photo by 1st Lt. Daniel King)

The Aerospace Maintenance and Regeneration Center partnered with the U.S. Army and STERIS Corp. to decontaminate the interior of a C-141B, testing a newly developed means to protect the global warfighter.

The relatively portable system, developed jointly by the Army's Edgewood Chemical Biological Center and STERIS Corp., neutralizes chemical and biological agents using vaporous hydrogen peroxide.

By transforming commonly available hydrogen peroxide solution into a dry vapor, the VHP system can clear agents from an aircraft's interior in a matter of hours. VHP permeates even the smallest areas of a sealed aircraft, destroying contaminants without damaging sensitive components.

The VHP system precludes the need for painstaking and dangerous manual decontamination.

AMARC's unique dry environment and the availability of stored aircraft made the center a logical destination for the test. Several AMARC employees supported the ECBC-STERIS effort.

"In addition to the C-141, we provided people to get the aircraft ready, security for the test and even coordination for the local media," said Rick Every of the AMARC business office.

Because it fits on one or two large vehicles, the relatively portable VHP system can be forward deployed or rapidly moved to any location worldwide.

By transforming commonly available hydrogen peroxide solution into a dry vapor, the VHP system can clear agents from an aircraft's interior in a matter of hours.

According to ECBC representative Brian MacIver, the VHP system also has potential commercial applications.

"We developed the system to support the warfighter," MacIver said. "But it can also be used to decontaminate buildings or commercial airliners."

MacIver also explained that in addition to destroying chemical and biological weapons, the VHP decontamination process can also be used to treat sick building syndrome or sick airplane syndrome since it destroys both common germs and contaminants such as the SARS virus.

The AMARC test placed non-hazardous simulants for anthrax and a mustard-like blister agent inside the C-141. Then the ECBC-STERIS team installed VHP dispersion units and fans inside the plane. A blower unit located outside the C-141 maintained negative pressure inside the sealed fuselage and filtered the air as it was removed.

"We designed the system to maintain negative air pressure in the aircraft being decontaminated," explained ECBC's Mark Brickhouse, head of the decontamination sciences team. "That way, potentially hazardous materials stay inside rather than being forced out."

"AMARC strives to establish integrated partnerships that improve support for the global warfighter, at the best possible value," said AMARC Civilian Director Gregory Garcia.

"In this partnership with ECBC and STERIS, the Center's unique location and capabilities make a real and positive impact on a situation with truly international implications," he said.

AFMC WARFIGHTERS

Deployed Robins AFB honor guard Airman draws on past experience to organize important ceremony

By 2nd Lt. Sequoiya L. Franks
78 ABW Public Affairs

Senior Airman David Brown, a former Robins Honor Guard member, can tell you a lot about serving on the honor guard — it doesn't matter if it's at home or 7,000 miles away in Kyrgyzstan.

When he arrived at Manas Air Base, Kyrgyzstan, in September, he already had plans to join the base Honor Guard. Not only was he accepted, he was asked to take over for the 9-11 ceremony that, at the time, was only days away.

"I did the 9-11 ceremony, and it went as smoothly as any ceremony would by a former Robins Honor Guard member," Airman Brown said.

Instilled with professionalism and confidence the Airman said he got serving on the Robins Honor Guard, he taught five volunteers how to conduct performances.

Later, the young Airman was personally recognized at the Manas Promotion and Base Awards ceremony by the base command chief master sergeant where the Honor Guard presented the Colors.

He was acknowledged as an outstanding Airman for stepping up when there was no one else, and being a leader through organizing and training the new Manas Air Base Honor Guard.

"I did the 9-11 ceremony and it went as smoothly as any ceremony would by a former Robins Honor Guard member," Airman Brown said.

"I wouldn't have been able to do any of these things without the training and guidance of the Robins Honor Guard," said Airman Brown.

Senior Airman Shannon Lampo, the Robins Honor Guard trainer, shares in the pride of seeing how hard work pays off.

"I love my job," she said.

"Honoring service members and seeing how people progress makes you feel good."

Master Sgt. Gary Scott, the program manager, agreed and said his job is rewarding because of the honor he feels in giving families a lasting impression of military pride and motivating young troops.

The Honor Guard provides military funeral honors for all active duty, retired, and veterans who served honorably in the Air Force.

They also perform in many military and civic functions, including ceremonial honors for distinguished persons, changes of command, retirement, promotion and awards ceremonies, graduations and community events.

Senior Airman David Brown, a former Robins AFB Honor Guard member, organized a Sept. 11 ceremony while deployed to a forward location with only a few days' notice. (AF photo)

AFMC's Fisher House

Providing a temporary home-away-from-home

By Capt. Alex G. Montgomery
FNHI Media Relations Volunteer

Although Ken and Judy Ward travel more than three hours from their house in West Virginia, when they arrive at the Wright-Patterson Air Force Base, Ohio, Fisher House they feel like they are home.

The Wards visit the base frequently so that Ken, who retired after 23 years in the Army, can receive care at Wright-Patterson Medical Center.

"This house is wonderful," said Judy. "My husband thinks it is terrific, too. The people here feel like family."

The Fisher House, which opened in May, 1994, provides an affordable, on-base refuge close to the medical center for patients and their families. Today there are 32 Fisher Houses at 23 locations worldwide, with the Wright-Patterson Fisher House being the only one in AFMC.

The Wards, like other guests, pay $10 a room per night. In addition to the low room rate, Fisher House guests can take advantage of laundry supplies and numerous food items provided through donations.

Unlike a hotel, the Fisher House offers a common living room and common dining area, as well as a commercial-type kitchen. The house has nine bedrooms and seven full bathrooms. A chair lift allows wheelchair-bound patients to access the upstairs.

The Fisher House program was established in 1990 by Zachary and Elizabeth Fisher, who wanted to help military members and their families. It was the Fishers' intent to keep military families together during times of medical crisis.

Alicia McCord, another Fisher House guest, feels the supportive and caring environment provided by the Fisher House has a beneficial impact to a patient's recovery process.

"Positive encounters are so important," said Ms. McCord, who is medically retired from the Army and lives in Detroit.

Ms. McCord stayed at the Fisher House recently with her grandmother, a Department of Defense dependent receiving care at the medical center's hyperbaric chamber and wound care clinic.

Ms. McCord is thankful for the moral support she gets from house manager Julie Quinn and other guests. "Coming in that (front) door is just like coming home," Ms. McCord said. "It would be a real hardship without this house."

The Fisher House kitchen, according to Ms. McCord and Mrs. Ward, is a place where guests can bond and offer support.

"It's just like the kitchen at home," said Ms. McCord, who loves to cook for herself and other guests. "People love to gather in there, eating standing up, and just talk."

Alicia McChord stays at the Fisher House when her grandmother receives medical attention at Wright-Patterson. McChord enjoys taking advantage of the house's kitchen, where she cooks for herself and other house guests. (Courtesy photo)

That experience is also shared by guests of Wright-Patterson's Nightingale House, which opened in May of 1990 as the first compassionate care facility in the DoD. The house, located across the street from the medical center, is a converted base house with seven bedrooms and two kitchens.

Both houses average more than 95 percent occupancy. In an average month both Ms. Quinn, and Nightingale house manager Pat Walters, will have to turn away many families due to space limitations.

While the houses are owned, managed and supported by the Air Force, they rely heavily on the work of volunteers for their continued viability.

The Fisher/Nightingale Houses Inc. is a private, non-DoD organization whose mission is to support the day-to-day expenses of the houses.

Anyone interested in contributing to the mission of the Fisher and Nightingale Houses can visit the FNHI web site at www.fnhi.org or contact Chris Stanley, executive director of the FNHI at cstanley@woh.rr.com or at (937) 864-5998 or (937) 672-8724.

Helping Airmen in need

By Jennifer E. West
377 ABW Public Affairs

Teresa Reinhard, Kirtland Air Force Aid Society officer, talks with a client requesting help during a personal emergency. (AF photo by Keith Pedersen)

Sometimes the worst thing happens at the most inopportune time, and the money isn't there to cover the expenses. That's when the Air Force Aid Society may step in to help an Airman through their crisis- from getting home for a funeral, or paying a sudden medical bill, to helping a stranded family or Airman reach a new duty station.

"There when you need us" is more than a motto for Air Force people suffering the distress of unforeseen emergencies.

The society helps people and their families who are facing a crisis that could be overcome with as little as $200 to buy food or more for larger emergencies.

When a Kirtland AFB, NM, Airman with a new infant was unable to shoulder the sudden expense of replacing a $2,000 transmission for the family's only vehicle, AFAS was able to help.

And when a single Airman's brother was wounded in Iraq, the aid society was able to help the Airman fly to the city where the brother was hospitalized, as well as to assist with car rental, food and lodging expenses for a week.

"When true emergencies occur," said Teresa Reinhard, Air Force aid officer, "it's a relief to know that someone cares and is willing to help in a very tangible way."

Requests for help are generally categorized as basic living expenses, medical and dental expenses, funeral expenses, respite care, vehicle repair, pay and allotment problems, disaster and assistance to surviving dependents.

But some flexibility is in place. So, when an Army retiree needed auto repair to ensure he could transport his wife to dialysis three times a week, AFAS was also able help through the Army Emergency Relief.

AFAS provides no-interest loans that can be repaid in one or two years and in some cases grants, which aren't repaid, or a combination of both.

Although a private, non-profit charity, the AFAS has one mission: helping Air Force members and families.

"I'm extremely impressed with the compassion and wisdom of the folks who answer the telephones and make decisions regarding requests for Air Force aid at the (society's) headquarters.

They really want to help people, always keeping in mind the goal of the AFAS to help active duty members and their families and retirees to avoid financial burdens that result from emergencies," Mrs. Reinhard said.

Decisions to support requests for aid are made on a case-by-case basis at the society's headquarters after preliminary investigation locally.

The aid is not given for non-emergency situations, like paying credit card debt, taxes or luxuries like cable, cell phones or elective surgeries.

Today, the program includes respite care for families providing 24-hour care to a member, assistance in the event of pay and allotment problems, assistance in the event of accidents and breakdowns while en route to new duty stations and help if stranded during travel and vehicle repair loans. The program also offers a car care oil change package for those with deployed spouses.

Emergencies aside, the aid society also promotes educational endeavors that help Airmen and their families succeed economically and offers spouses orientation, nursing moms and new parents programs and child care for volunteers working on the base and people in the process of a permanent change of station.

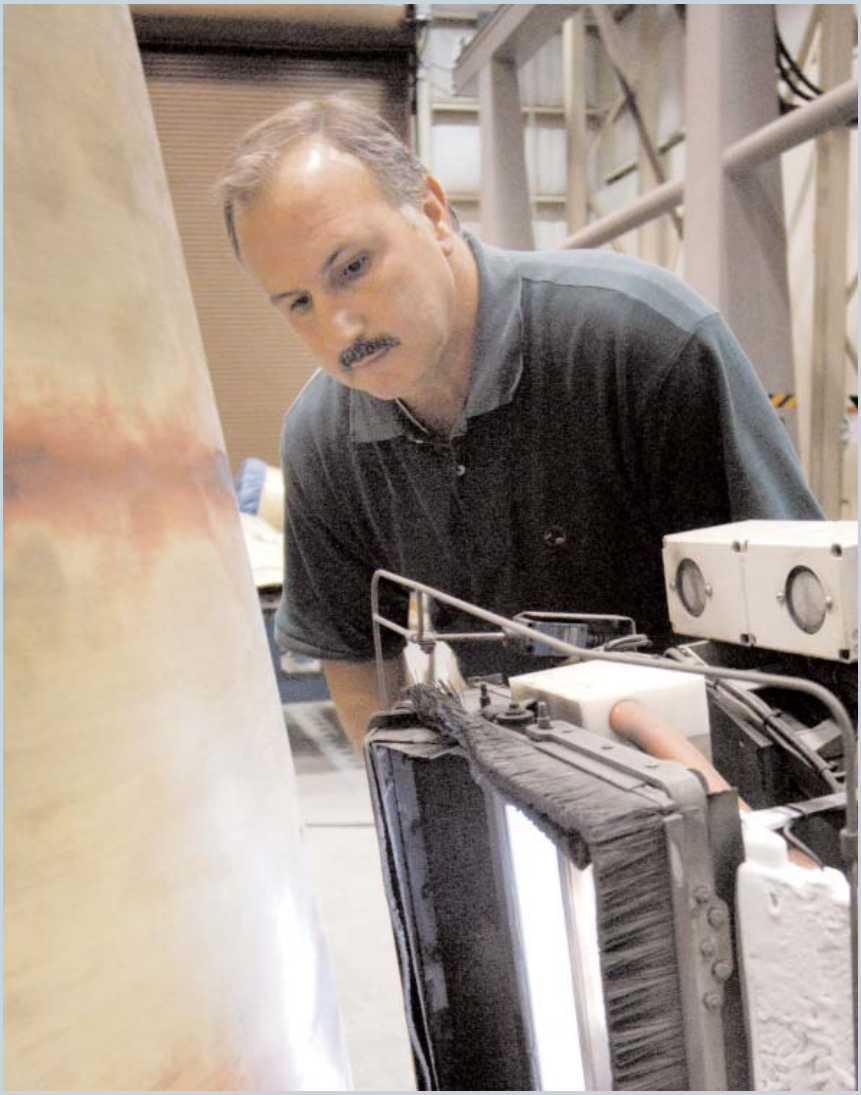
Of more than $22.6 million that helped more than 30,000 Air Force members and their families last year, 25 percent of funds were from donations. Every dollar-100 percent-donated to the society is directed to the emergency assistance programs.

Operating costs and other expenses for the society are harvested from investment fund income and loan pay backs.

The 2005 Air Force Assistance Fund campaign, which solicits donations on behalf of the Air Force Aid Society, runs Feb. 14 to May 6.

AFMC makes P2 a priority

By Ron Scharven
AFMC Public Affairs



Mario Largaespaeda, paint shop supervisor at Warner-Robins ALC , uses the Flashjet® instead of chemicals to remove paint from an F-15 radome. (Photo courtesy of Warner-Robins ALC)

When some people hear pollution prevention, they think of recycling newspapers, cans and glass. But in the Air Force Materiel Command, pollution prevention, or P2, means working to save the environment, protect the health of the workers, and reducing production time and costs.

The main thrust of the Weapon Systems P2 program is to introduce alternative "green" technologies into the weapon system maintenance processes primarily at the Air Logistic Centers, said Mr. Ed Finke, Air Force Materiel Command Weapon System Pollution Prevention Program Manager.

"P2 is important to the command because of the nature of AFMC's business to develop, field and sustain war winning capabilities on time and on cost; depot maintenance and management of weapon systems are an integral part of that mission," Mr. Finke said.

"Except for space and missile assets, AFMC has 'cradle to grave' responsibility for the entire Air Force weapons inventory. The nature of many of the industrial processes used to sustain weapon systems results in a considerable amount of pollution that must be controlled and monitored. As a result, the command has the largest environmental compliance program in the Air Force," said Mr. Finke.

A detailed analysis is done of any proposed alternative technology to ensure it provides a viable, cost-effective solution, explained Mr. Finke.

"Suppose someone comes up with an 'environmentally friendly' maintenance process affecting the B-52 Stratofortress bomber," he said.

"A comprehensive analysis is done of the alternative process to include not just the immediate dollar savings, but also an evaluation of safety, occupational health, long term cost, maintenance and production impacts and what effect the change will ultimately have on the warfighter."

Implementing an alternative technology is not something that happens overnight either. "There is a dynamic methodology involved in the process," Mr. Finke said. "The alternative needs to develop from concept to bench scale in a laboratory and then to a full-scale prototype."

"Then the prototype is inserted into an actual industrial process to show that it can be done not only on the micro-scale but also on a full-scale industrial process," Mr. Finke said.

At the core of weapon system P2 within AFMC is the Pollution Prevention Integrated Product Team made up of various functional offices at the headquarters. Core members of the team include representatives from Mission Support, Logistics, Surgeon General, Safety, Capabilities and AFRL. "One of the roles of the P2-IPT is to validate the requirements for Weapon System P2."

The successes make the program worthwhile. For example, the ALCs and GOCOs, government-owned, contractor-operated plants, are all using powder coating for some off-aircraft parts as an alternative to solvent borne paints in some processes. In this process, the powder is electrostatically attracted to the part and then baked in an oven to form a tough, uniform coating.

The beauty of this process is that it performs as well as solvent based paints but eliminates hazardous air pollutants and solvents.

High tech has also joined the paint removal process. Warner-Robins ALC uses a high-energy Xenon lamp to soften the paint and then solid carbon dioxide pellets to do the final removal of the paint. Ogden ALC at Hill AFB, Utah, uses lasers to destroy the paint on aircraft radomes but the energy is not high enough to affect the composite material of the radome. Both of these alternative paint removal methods reduce significantly the use of methylene chloride at these depots.

First Lt. Tracy Page, AFMC Public Affairs, poses for a picture in front of the oldest theater in St. Petersburg, Russia, during her language and area studies immersion there. The Air Force developed programs like the Language and Area Studies Immersion Program, or LASI, in response to a growing need for officers to acquire international communications skills. Lieutenants through lieutenant colonels can apply for the program. (Courtesy photo)

Air Force's best kept secret?

Officer shares linguistic, cultural experiences from language program

By 1st Lt. Brooke Davis
AFFTC Public Affairs

A person who speaks two languages is called "bilingual," and a person who speaks one language is called an American.

This joke thrilled one of the teachers at Bridge-Linguatec in Buenos Aires, Argentina, and although people can joke about it, taking the step to learn a language can be one of the hardest things a person can do.

The Air Force developed programs like the Language and Area Studies Immersion Program — a four week, in-country program focused on using a target language — in response to a growing need for Airmen to acquire international communications skills. The LASI program is managed by the Foreign Area Officer program in Washington, and lieutenants through lieutenant colonels can apply to be immersed in various countries.

I have to admit, listening to Marc Anthony and Spanish CDs didn't really prepare me for the invasion of the Spanish language I received after arriving in Buenos Aires. After taking the Defense Language Proficiency Test and scoring a 1/1, which meant I had a basic knowledge of Spanish, I thought I could at least tell a taxi driver how to get me from point A to point B. This didn't always happen, and I got an occasional unexpected tour of the city after not rolling an 'r'.

After my application was approved for the Argentina LASI program, I packed my bags, flew 15 hours to Buenos Aires and stumbled my way to my host family's home using my broken Spanish. Buenos Aires has a population of more than 13 million people; this city is so busy it doesn't even have time for a siesta.

I took an aptitude test on the first day of class, and it was determined that I was elementary in Spanish, and I was stuck in the beginners group. I felt like someone robbed me of my intelligence because I couldn't understand entire sentences, and after a day of class, my brain felt like oatmeal. I went to class every day between six and seven hours, and the rules of the class were easy — only Spanish was to be spoken. Spanish was also only to be spoken while living with the host family.

After Spanish class, the group of immersed Air Force officers would go on "excursions" to historical places around the city. The excursions were, of course, all in Spanish, and I toured the entire Colón Theater, one of the most famous opera houses in the world, without understanding much from the tour guide because her accent was unlike anything I'd ever heard. We also visited other parts of the city that housed Latin American art museums, Evita Perón's grave in the Recoleta Cemetery and La Boca.

Although the Friday lectures were late in the afternoon, after lunch and at a time when one was not really thinking about Argentine culture, they taught us some of the culture, history and issues the country faces.

Despite making a fool of myself by using the wrong words for a variety of simple comments, I don't regret putting myself out there again and again to learn a language I've always wanted to master.

In this four-week trip I was able to learn more than I could have imagined. Check out the FAO Web site at https:// fao.hq.af.mil/default.cfm for more information on language immersion programs and to start the process of becoming a "bilingual" American.

Delivering war-winning expeditionary capabilities to the warfighter

An F-16 Fighting Falcon returns to Shaw AFB, S.C., from Hill AFB, Utah, after recieving state-of-the-art digital avionics, improving its survivability and lethality by 40 percent. Ogden Air Logistics Center beat its goal for F-16 modification maintenance in 2004: 266 aircraft were delivered to warfighters, nine more than scheduled. (AF photo by Staff Sgt. Nathan G. Bevier)